DOCUMENT RESUME

ED 101 474 EA 006 758

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TITLE	The State Dollar and the Schools. A Discussion of State Aid Programs in Massachusetts and Promising Reforms.
INSTITUTION	Massachusetts Advisory Council on Education, Boston.
PUB DATE	70
NOTE	29p.
EDRS PRICE	MF-$0.76 HC-$1.95 PLUS POSTAGE
DESCRIPTORS	Educational Economics; *Educational Finance; Elementary Secondary Education; *Equal Education; *Equalization Aid; *Finance Reform; School Support; *State Aid; State School District Relationship
IDENTIFIERS	*Massachusetts

ABSTRACT

This report discusses the history and nature of State aid to education in Massachusetts. The report is both a summary and an update of information contained in four earlier studies that analyzed the economics of education in Massachusetts and the State's new equalizing education aid formula. The report recommends that the State adopt an unrestricted percentage equalizing plan coupled with a new program of local educational accounting. It suggests that since education is a State responsibility, at least 50 percent of school funding should come from State-levied resources, but not to the exclusion of substantial local support or without the expectation of a large Federal contribution in the future. The report also suggests that the method of State funding should itself contribute to the development of local initiative and public participation. (Author/DN)

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THE STATE DOLLAR AND THE SCHOOLS

A Discussion of State Aid Programs in Massachusetts and Promising Reforms

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1970

EA 006 758

INTRODUCTION

Many reports during the past twenty-five years have described and decried the range of the inequalities of educational opportunity in Massachusetts. They also describe and decry the unequal wealth among communities and the low level of equalizing State financial support to which they ascribe the cause for much of the unequal educational opportunities. Other documents show Massachusetts' fiscal support of public elementary and secondary education and public higher education to be low in comparison with other large industrial states of comparable wealth. During 1967 and 1968 the Advisory Council commissioned four studies which analyzed the state of economics of education in Massachusetts and the nature and effectiveness of the State's new equalizing education aid formula. With the last contract the Council provided for the preparation of one summary report of all studies. By July 1969 when Dr. André Danière of Boston College issued the last report, *Cost-Benefit Analysis of General Purpose School-Aid Formulas* in Massachusetts, much of the information in the first reports was out-of-date, and the Legislature had voted full funding of the Educational Aid Formula. Inequalities were still the rule, and state aid continued to be a too small portion of school costs.

Thus the Council requested Mrs. Charlotte Ryan, Chairman of the Massachusetts Educational Conference Board, whom it had originally commissioned to prepare the summary, to update the information in the early reports. It further authorized Mrs. Ryan to extend the scope of the discu sion of the history and nature of state aid to education in Massachusetts and to introduce other important concepts related to good education, public confidence in the schools, and adequate support of them.

Now, three years after commissioning of the first economics studies, the Advisory Council issues this considerably extended report. The scope of the studies and the additional matters which Mrs. Ryan has introduced are complex and difficult, yet upon their proper ordering depends good education equally available to all in the forms they need it.

The Council is grateful to the New England School Development Council for managing the studies and the printing of this report. It urges Legislators, educators and citizen leaders and groups to read the report carefully so that they may make the urgent decisions and lead Massachusetts citizens toward the support of an equitable and good education for the common social and economic welfare and to assure individual justice.

William C. Gaige
Director of Research

ACKNOWLEDGEMENTS

Initially this paper was undertaken as a summary of earlier MACE reports concerned with financing of the public schools. It soon appeared, however, that much of their content had already become historical and that changing circumstances called for different emphases. The writer is indebted to Dr. William C. Gaige, Director of MACE, for accepting this paper as not a summary but an addition to the MACE reports on public school finance, and makes grateful acknowledgement.

The writer is deeply indebted to Dr. James F. Baker, Assistant Commissioner of Education, and his associates in the Division of Research and Development, Mr. Leo Turo and Mr. Glenn Myers, for state aid data; to Dr. Everett G. Thistle, Assistant Commissioner of Education, chairman of the Equal Educational Opportunities Committee, for the privilege of participating in the committee's discussions, and to its members for their lively and searching inquiries; to Mr. Robert H. McClain, Jr., Counsel to the Joint Committee on Taxation, Massachusetts Legislature; and to Mr. Lyman H. Ziegler, Director of Technical Services, Massachusetts Taxpayers Foundation, for much good critical advice.

C.R.

For the third time since World War II, Massachusetts stands at a crossroads in financing its public schools. Though new state taxes were enacted four years ago, the state share in school support was increased only temporarily and disappeared in rising school costs. Again school support lies chiefly on the property tax, and the differences between school districts in that financial base have produced economic discrimination in school support that causes much educational inequity and some hold to be unconstitutional.

At the same time education no longer holds the priority for public funds that was once little questioned. Taxpayers have begun to resist the constant rise in budget requests; state and localities both are pressed to provide for other critical needs in housing, clean air and water, and crime control, while school planners are handicapped by inflation's increasing school expenditures well beyond projections.[1]

At this time taxes are still increasing at a stable percentage of increasing personal incomes,[2] but with the slowing of the economy to fight inflation, it may not be assumed that individual resources will remain in constant ratio to community need. Rather, to assure reasonably good schools for all our children, there is every reason to study the distribution of school support for equity, economy, and effectiveness.

PUBLIC EDUCATION LEGALLY A STATE RESPONSIBILITY

Despite local operation of the schools, public education has long been accepted as a legal responsibility of the state, on the basis that it is politically, socially, and economically beneficial to all citizens for every child to have educational opportunity regardless of where he may live or what may be the attitude of his community toward schools. While the exercise of this responsibility has been delegated to local school committees or school boards, the basic state mandate for universal public schools, open to all and offering reasonably good education, has been accepted by every state in the Union.

Theoretically, state funds would provide at least some proportion of the cost of a state responsibility, and the majority of states do contribute a substantial share of school support. In Massachusetts, state aid has gone to local school districts for most of this century,

[1] NEA's *Ranking of the States 1970* estimates 1969-70 national average per-pupil expenditure as $717, whereas *Projections of Educational Statistics 1977-78* (National Education Association 1969) estimated 1969-70 average expenditures as $689 and 1973-74 expenditures as $723.

[2] State and local taxes in Massachusetts were 10.3% of personal income in 1968, 9.31% in 1959. *Ranking of the States 1970*. NEA.

but up to the present has never amounted to more than 27 percent of the cost, always less than in most other states. School support has therefore been largely dependent on the property tax revenues of each community. As school costs increased over the last several decades, particularly in the wave of inflation after World War II, school support became an increasingly heavy burden. Schools looked to the state both for general financial assistance and for "equalizing" aid to cure the growing disparities in educational opportunity.

THE 1948 FOUNDATION PLAN

In 1948 a major political effort achieved enactment of a foundation program of state aid, adding $10.4 million to the previous $5.3 million of state funds. The total came to about 14 percent of the 1949 school operating costs.

The "foundation" type of state aid is based on the assumption that a year's good education should cost so many dollars per pupil, and that the fair local contribution may be set at a certain uniform tax rate, after which the state grant becomes the difference between these two figures.

As the foundation plan was adopted in Massachusetts in 1948, $130 per census child, 7 through 16 years of age, was set as the local school cost, and $6 per $1000 of equalized (market value) property valuation was set as the appropriate local tax effort. Because only $10.4 million was available, the program as proposed was cut in half during enactment. That is, state aid was set as only half the difference between the required local effort and the desired expenditure.

Further, legislative action was needed to keep the formula updated, and the legislature did not act. Thus, as costs increased the state's share declined. Annual efforts to update the formula and thus increase state aid were repeatedly unsuccessful, although a number of special or categorical aids were enacted. By 1964 state aid available under the formula had dropped to less than 9 percent of operating costs, and total school aid including the categorical aids was less than 15 percent.

TODAY'S STATE AID PLAN

In 1962 another legislative effort began, led by the school organizations now formally organized in the Massachusetts Educational Conference Board. This culminated in 1966 with the enactment of a new state aid program. The new program was based on a "percentage equalization" formula which differs from the previous foundation formula in that the state undertakes to provide a continuing and constant percentage share of local school operating expenses. The percentage is based on local financial ability; thus no special updating should be needed. While only two or three other states had adopted plans of this sort before 1966, Massachusetts had been using a similar plan in the school building assistance formula since 1948.

The 1966 program, sometimes called the NESDEC formula,[3] was to provide state aid averaging at 35 percent of school operating costs. The aid to each school district would vary

[3]Developed by the New England School Development Council.

on a sliding scale between 15 and 75 percent of each community's school expenditures according to local financial ability. Local ability was measured according to the major source of school support—the property tax. Specifically, the local ability of each community was measured by the amount of taxable property per school child at equalized (market) value, and the percentage of school aid set according to the relation of that community to all others in the state. The equalizing effect of the plan comes about in making it possible for all communities to support equivalent school programs at the same school tax rate. It also offered the incentive that the state would share in program improvement at the same percentage.

During the legislative process, however, amendments reduced the intended equalizing effect by restricting the expenditures to which the percentage aid could be applied. Also, available funds were restricted to 80 percent of the sales tax yield, which not only further reduced the equalizing effect but reduced the scale of the program by almost half.[4] Thus the new program was launched under handicaps just as was its predecessor.

In 1969 state aid under the new formula amounted to about 17.9 percent of 1967-68 school costs. The remaining categorical aids added about 4.7 percent, for a total state share of 22.4 percent.

At the end of the 1969 legislative session, a stop-gap tax law removed one major handicap: It authorized full funding of the Chapter 70 general school aid for the first time, to take effect in 1970.

RESOURCES HIGH—EFFORT LOW

Massachusetts now spends substantially less for public school support, in relation to other states, than is warranted by its relatively high level of resources. Table I shows Massachusetts' total support of its public schools as above average among the fifty states in respect to dollars per pupil, but at the bottom of all states in ratio of expenditure to income resources. Moreover, the distribution of school support between state and local sources is decidedly unbalanced in comparison with national averages. (See Table I on page 4.)

State revenues devoted to the support of public schools in Massachusetts consist of 1) general school aid under Chapter 70 of the General Laws, 2) categorical aids for such programs as vocational and special education, transportation, and school lunches, 3) other programs such as school building assistance, retirement, and support of the Department of Education, and 4) some proportion of general municipal aid as locally determined. All of these except general municipal aid are included in the 20 percent state aid attributed to Massachusetts in Table I.

Thus the state share of public school costs may be more favorably appraised by adding to the designated state aid that proportion of general municipal aid which is on the average appropriated to school use, about 35 percent.[5] To the 1969 state school aid of $161

[4] In 1967 the state aid program was funded at 56.5 percent of entitlements. The changes referred to are described in greater detail on page 8.

[5] Also proposed in an earlier MACE report, *Massachusetts and Its Support of the Public Schools, Revised.* Joseph Cronin and Robert Marden. Boston: Massachusetts Advisory Council on Education. 1968.

TABLE I

1969-70 Est.	Mass.	Rank	National Average	Highest and Lowest States
Public school revenue per pupil in ADA	$960.	15	$907.	N.Y. $1,430 – $524 Alabama
% from local sources	74.0%	3	52.5%	N.H. 87.2% – 3.9% Hawaii
% from state sources	20.0%	47	40.8%	Hawaii 87.0% – 8.5% N.H.
% from federal sources	6.0%	30	6.7%	Alaska 25.7% – 3.2% Wisc.
Current expenditure per pupil enrolled	$705.	25	$717.	N.Y. $1,134 – $419 Alabama
1968-69 current expend. as % of 1968 personal income	3.9%	50	5.2%	Alaska 8.3% – 3.9% Mass.

Source: *Rankings of the States 1970*. NEA Research Report 1970-R1.

Definitions: School revenues are all revenue receipts from any source available for current expenditures, capital outlay, and debt service for public schools, per pupil in average daily attendance. Current expenditures are all amounts spent at all levels of administration for public elementary and secondary day schools, for administration, all services, operation and maintenance, including state department of education and retirement contributions.

million from all programs may be added $36 million of municipal aid, or about $34 per pupil. This would raise revenues per pupil to $994, with a state rank of 12th, and change the proportion of state and local school revenues to 22.7 and 71.4 percent respectively, with state ranks at 46th and 6th, instead of 47th and 3rd.

While the state ranking is improved slightly in comparison with other states by including municipal aid, the disparities in fiscal ability between Massachusetts cities and towns are not thereby improved. The general municipal aid is known as the "valuation distribution" because it is distributed in direct proportion to the amount of taxable property in each community. Until this year, the valuation distribution not only held priority over the equalizing general school aid but was larger than that aid and thus effectively cancelled the school aid's equalizing effect on local fiscal ability.[6]

The law has now been amended to reverse the priorities in the state distribution to communities. Beginning in 1970, school aid, distributed according to need, takes precedence over the municipal distribution. Until new tax programs are enacted, however, school aid is not likely to be increased to the proportion of school costs warranted by the high level of state resources shown in Table II.

MASSACHUSETTS HIGH IN FINANCIAL RESOURCES

Massachusetts people rank high in per capita income and buying power. Income per

[6]Only the general school aid under Chapter 70 of the General Laws is equalizing. Categorical aids are distributed on a flat percentage basis. Of the total program in 1966-67, Steven J. Weiss noted, "The Massachusetts program actually has a slight tendency to yield perverse results—a positive relationship between ability and state aid per pupil." *Existing Disparities in Public School Finance and Proposals for Reform*, Research Report to the Federal Reserve Bank of Boston No. 46. February 1970, p. 41.

school-age child is even higher because of the low proportion of school-age children in the population: less than 25 percent, in which the state ranks 44th among states. Its population, also, is relatively high density, third among states with 691 people per square mile.

While Massachusetts stands 25th in school expenditures per pupil, in other expenditures on a per capita basis (state and local) the Commonwealth stands 5th from the top of all states in welfare, 5th in health and hospitals, 10th in police protection, and at the top in fire protection.

TABLE II

1968	Mass.	Rank	National Average	Highest and Lowest States
Per capita personal income	$3,835	8	$3,421	Conn. $4,256 – $2,081 Miss.
% of 10-year increase	67.7%	20	65.4%	S.C. 89% – 42.9% Mont.
Personal income per school-age child	$15,525	5	$13,080	N.Y. $17,233 – $7,195 Miss.
Effective buying income per household	$10,545	10	$9,592	Hawaii $11,846* – $6,707 Ark.

*Excluding Alaska, $13,160, where all cost and expenditure figures are rated as inflated by about 25 percent.

Source: *Ranking of the States 1970*. NEA.

MASSACHUSETTS TAX STRUCTURE

Table III presents the imbalance in the Commonwealth's local and state tax burdens, reflecting the distribution of school support shown in Table I. In comparison with other states, per capita state tax collections rank much lower than does the level of average citizen income, but property taxes are among the highest in the country. It may be added that Massachusetts property taxes currently amount on the average to paying a 5 percent sales tax on one's property every year.

While the property tax has a great deal of stability, assessments differ widely in relation to market values, are not progressive in the sense of increasing rates with higher valuations, and are indeed regressive in that property taxes tend to take a higher proportion of lower incomes. The greater the reliance on a regressive and inequitable tax method, the more burdensome the tax and the more reluctant is the acceptance of an even greater burden. It is not surprising, therefore, that Massachusetts ranks 19th in total tax effort and 50th in school support effort (Table I), even though it is well within the top ten states in wealth. (See Table III on page 6.)

DEPENDENCE ON THE PROPERTY TAX = EDUCATIONAL INEQUITY

The wide disparities among communities in amount of taxable property perpetuate serious inequities in school support. Towns in Massachusetts are as wide apart in school support as are the states of the Union. Table IV shows the highest and lowest spending towns in Massachusetts and their equivalents among the states. At the high end of the scale several

TABLE III

1967-68	Mass.	Rank	National Average	Highest and Lowest States
Per capita total state & local revenue	$534.48	18	$506.67	Alaska $814.25* — $326.11 S.C.
Per capita state & local revenue from own sources	$456.39	13	$420.71	Alaska $467.54** — $252.35 Ark.
Per capita state & local tax collections	$396.23	6	$338.09	N.Y. $503.49 — $199.60 Ark.
Per capita state taxes	$190.06	17	$182.94	Hawaii $311.90 — $107.21 N.H.
Per capita local taxes	$206.	4	$156.	N.Y. $258. — $48. S.C.
Total state & local taxes as % of personal income	10.3%	19	9.9%	Wyo. 12.7% — 7.9% Ohio
Property taxes as % of personal income	5.3%	7	4.1%	Mont. 6.5% — 1.5% Ala.
Property tax revenue as % of total state & local taxes	51.5%	8	41.1%	N.H. 61.1% — 16.6% Ala.

*Alaska, $1,085.66, discounted at 25 percent.
**Alaska, $623.39, discounted at 25 percent.

Source: *Ranking of the States 1970*. NEA.

small towns whose expenditures run to $1510 per pupil are excluded because their pupil populations are 50 or less.

TABLE IV

1968-69	Expenditure per pupil NAM	Equalized School tax	Equivalent to:	% of personal incomes
Massachusetts	$659.			3.9%
			National average $655.	5.2%
Highest town	$1,138.	$14.13	N.Y. average $1,035.	5.8%
Lowest town	$433.	$20.61	Miss. average $439.	6.3%

Sources: Massachusetts Department of Education, Division of Research and Development; Massachusetts Teachers Association, Research Division; *Ranking of the States 1970*. NEA.

Just as Massachusetts can support so much higher a per-pupil expenditure with so much less effort than Mississippi, because its citizens have so much higher a total of personal incomes, even so the highest spending town in Massachusetts is able to support almost three times as high an expenditure as the lowest spending town on two-thirds the latter's tax rate, because it has $59,000 taxable property behind each child in school and the other town has only $14,500 per child.

At the same time the highest spending town puts 33 percent of its total taxes into schools, the lowest 51 percent. Many other towns devote even larger percentages of their tax revenues to schools. The cities, however, are generally able to spend less for schools in pro-

portion to total taxes because fire, police, and other services cost more per capita than in less densely populated areas. The current range among all towns and cities is from 18 to 88 per cent of local taxes devoted to schools, with the median town at 55 percent.

STATE AID EXPECTED TO EQUALIZE SCHOOL SUPPORT

It is such disparities in ability to support schools that state aid is expected to cure, by giving to each town a grant or share of school costs which differs according to that town's ability to raise taxes, and which when added to the local funds will make possible educational opportunity fairly equal to that offered by other towns.

The plan once most commonly used among the states was the per-pupil grant, the same number of dollars per pupil, no matter how prosperous or how poor the district. Perhaps because it is the most easily understood of all plans, it is often proposed as an alternative whenever the current plan falls short in performance. The objection to the per-pupil grant is that equal treatment of high and low ability towns disregards their differing fiscal needs. For instance, adding $100 per pupil to the $433 per-pupil expenditure of the low spending town in Table IV would do little to bring its school program up to the $705 state average of 1969-70, let alone to higher levels.

In order to match state aid more nearly to local fiscal ability, the foundation (Strayer-Haig) plan was first proposed in 1923 and soon adopted in several states; it is now the most commonly used, in many variations. The foundation plan adopted by Massachusetts in 1948 was badly handled, however. Not only were the proposed grants diminished by half; it was provided that the $130 set as the required per-pupil expenditure would increase in proportion to increasing valuations each time the legislature sanctioned the updating of equalized valuation figures. Since this never occurred, as was indicated above, school costs increased faster than state aid, so that the proportion of general school aid fell by 1964 to less than 9 percent of school operating expenditures. The equalized valuations assigned in 1945 gradually lost all relationship to reality and, altogether, as an equalizing force the program was only a pretense.

By 1962 the schools were again in financial crisis. Experience with the foundation program suggested a more automatic procedure for keeping state aid in a constant proportion of school costs. Under the guidance of Charles S. Benson,[7] then a professor at Harvard, the newly joined school organizations proposed a new state aid program based on a percentage equalization formula.[8]

The percentage equalization plan was first adopted in Wisconsin in 1947. It abandons the idea of granting so much per child or so much per classroom, and says simply that the state will share in local school costs on a percentage basis. Because the percentage of the

[7]Charles S. Benson, *The Economics of Public Education*, Boston, 1961. *The Cheerful Prospect, A Statement on the Future of American Education*, Boston, 1965.

[8]*State Aid to Education in Massachusetts.* A NESDEC Research Report on Existing Conditions and Recommended Changes. Joel S. Weinberg, Research Associate, New England School Development Council. 1962.

state share varies according to local ability to pay, local wealth is eliminated as the determining factor in quality of education, if the plan is properly implemented. That the percentage share is constant with increasing costs offers incentive to local effort.

The original NESDEC formula[9] was the simplest version of the plan yet offered in any state. It became the core of numerous sales and income tax proposals under two governors, until it was finally enacted in March 1966 as the central feature of Massachusetts' first sales tax legislation. Nevertheless, the result was disappointing. The mechanism was installed to keep the state's share automatically current, by authorizing use of most recent equalized valuation figures at any time. But, in the long legislative process changes in other factors took place that sharply reduced the equalizing effect:

1) A ceiling was placed on the expenditures to which aid could be applied, at 100 percent of the state average expenditures. This reduced the effective percentage by as much as half for some towns, and worked a hardship on some school districts of moderate ability that devoted high tax effort to education. At the same time, it presented a felt inequity to financially able towns whose well-above-average expenditures with minimal state aid supported experimentation and produced educational improvements benefiting other schools in low-expenditure towns.

2) Those towns that spend less than 80 percent of the state average expenditure nevertheless receive aid applied at the 80 percent level; their effective aid percentages are thereby increased, but they do not always spend the increased funds for schools.

3) The previous year's state aid is deducted from the expenditures that are reimbursed, along with federal aid. Effective aid for each town is reduced on the average by about one-quarter, which hurts less able more than it does prosperous towns. Secondly, the reduction is greater one year and less another year, which was soon christened the "yo-yo" effect. The "yo-yo" is illustrated in Table V by the record of state aid entitlements over the past several years; these were based on reimbursable expenditures from which the previous year's aid distribution had been deducted. A column of average per-pupil expenditures is added to indicate the steady rise in school costs.

4) Finally, funding of the new formula was restricted to 80 percent of the sales tax yield, after deducting state reimbursements for special classes, also paid from this source. For the three years 1967 through 1969 available funds amounted to 56 to 65 percent of the entitlements, as seen in Table V, with the entitlements already reduced by deduction of the previous year's aid. (See Table V on page 9.)

Each of these changes reduced the correlation with need by which an equalization formula eliminates the wealth differences between school districts. In its pure form, without limitation of any kind, the correlation with ability in the NESDEC formula was computed at .97 percent;[10] in this form some well-to-do towns would be paying money into the state

[9] State aid = $\left[1 - \left(.65 \frac{\text{local val/SAC}}{\text{state val/SAC}}\right)\right] \times$ school expenditures

[10] Joel S. Weinberg, *State Aid to Education in Massachusetts*, cited above. The higher the negative percentage, the higher the correlation to need.

TABLE V

Calendar year	Total aid entitlement (in millions of dollars)	Total aid distributed	Expenditure per NAM in	School year
1966	$142.3	$56.1	$511.	1965-66
1967	172.5	97.2	543.	1966-67
1968	157.6	110.2	585.	1967-68
1969	174.7	112.0	639.	1968-69
1970	204.3	204.3	705. est.	1969-70
1971	168. est.			

Note: School aid is distributed in a calendar year, based on school expenditures in the preceding school year. 1970 is the first year of full funding.

Sources: Department of Education, Division of Research and Development; *Ranking of the States 1967-1970*, NEA.

instead of receiving aid. Since the citizens of these towns pay a larger proportion of the taxes from which state aid is distributed, however, the formula was modified to include a minimum aid of 15 percent. At the other end of the scale, it was felt that even the poorest town should contribute a certain share of its schools' support; thus maximum aid was set at 75 percent. Finally, to make a new formula politically palatable, a provision was included to insure that no town suffered loss of state aid by the change; this is called the "save-harmless clause." The Massachusetts legislature enacted this clause as 115 percent of aid received in 1965. In 1970, 19 school districts are still benefiting from entitlements raised to the amounts received in 1965 plus 15 percent.

It was computed that the maximum-minimum percentages and the save-harmless clause reduced the statistical correlation with need, the effective equalization, to -47 percent.[11] No calculation has been made of the further effect on the correlation of the other changes made in the legislative process, but it may be assumed to be significant.[12]

ARE THERE BETTER PLANS?

The present fiscal crisis has occasioned several studies of school aid financing under different auspices.[13] Not only the basic formula, but the separate elements of any state aid

[11] Weinberg, cited above.

[12] Weiss found a correlation of +.04 or +4 percent for total state aid to current expenditures, including special aids, for 1966-67. *Existing Disparities in Public School Finance and Proposals for Reform*, cited above, p. 41.

[13] MACE Report 1-67. *Massachusetts and Its Support of the Public Schools, Revised.* April 1, 1968. Joseph Cronin and Robert Marden.
MACE Report 3-67. *Cost-Benefit Analysis of General Purpose School Aid Formulas in Massachusetts.* July 1969. André Daniere.
Committee on Equal Educational Opportunities, Massachusetts Department of Education: Chairman, Everett G. Thistle, Assistant Commissioner of Education.
Master Tax Plan Commission, Subcommittee on Local Aid.

formula have been examined: measures of local fiscal ability, school population to be counted, optimum state and local shares in school support, limitations on expenditures to be reimbursed, and ways to bring about higher school expenditures in low-effort districts.

There is also the question of whether special assistance to cities should be included in a school aid formula. As was indicated earlier, cities are generally able to devote a smaller percentage of tax resources to school support than are other communities because fire, police, and other services cost more per capita than in less densely populated areas.[14] In the absence of any other special aid, a "municipal overburden" factor is commonly included in school aid formulas. The current percentage formula uses school-attending children (instead of public school children alone) in its ability measure as a stand-in for such a factor, on the theory that flight from the public schools indicates greater need; when tested for each school district, the apparent correlation with need was satisfactory. But as there continues to take place a transfer of pupils from non-public church schools to public schools, it is necessary to find another measure.

The major question, of course, is which method of state support best provides for good education, gives incentive to educational opportunity in each school district, and most competently equalizes local wealth. The current three choices are: 1) continuing with a reformed percentage equalizing formula, 2) returning to a foundation formula, or 3) adopting a new method of virtually complete state support. In arriving at a major choice, however, there are several necessary subsidiary choices to be made of component elements.

1) *The measure of local ability*. Equalized valuation (full market value) of real property as a measure of local ability to support schools has been attacked on the point of equity, whether the equalization figures set by the Massachusetts Tax Commission for each town's total taxable property are fair and reasonably accurate. In any type of state aid formula using valuations per child, the amount of aid a town receives decreases if its property valuations rise more than does its school population. Thus adequate staff to check property sales and keep valuations current is an essential factor, as well as maintenance of political independence in establishing valuation figures, with appeal based only on findings of fact.

The other frequent objection raised to the property valuation measure is that property taxes must be paid out of income, and therefore income is a more equitable measure of taxpaying ability. This does not necessarily follow. As Burke pointed out in his exhaustive study of school financing,[15] "Income is a much more elusive thing than is generally realized." Income can be monetary or non-monetary, and comes from an almost infinite variety of sources: 1) census-reporting, which is unlikely to be full or accurate; 2) income-tax returns which are incomplete, largely unaudited, subject to numerous errors, and not available for necessary town units, and 3) estimates of income at source with guesses as to where it should be allocated according to residence of recipients. Moreover, income in the economic

[14] Erick L. Lindman, *State School Support and Municipal Government Costs*, University of California, Los Angeles.

[15] Arvid J. Burke, *Financing Public Schools in the United States*. Revised edition. New York. 1957. Pp. 640-641, 651-656.

sense varies with price changes, location, past obligations and future prospects, and changing value of debts and assets. If income data are "acceptable as a measure of relative ability," Burke concludes, "it is because the concept of income is not fully understood." Equalized valuations are not a perfect device, but they do represent the only revenue source available to school committees, and their use conforms to more of the criteria of a satisfactory measure of ability – objectivity, current data, independence of local manipulation, and stability – than any other.

Despite considerable interest it appears that no attempt was made in Massachusetts, at least, to make actual trial of an income factor as a measure of local ability in a state aid formula until Danière did so in his study for the Massachusetts Advisory Council on Education.[16] Using extensive computer analysis of several variations of both percentage equalization and foundation formulas, each tested with equalized property valuations and with average family incomes per school-attending child (SAC), Danière found that the family income factor had a much lower variance among Massachusetts communities than did the equalized valuation.[17]

Communities varied between a high average family income of $10,125 and a low income of $2,583, or by less than 4 to 1; whereas the valuations per school-attending child vary by 53 to 1. At first it seemed that a foundation formula using family income ratio as an ability measure offered apparent equalization with a much smaller cost to the state than the percentage formula based on equalized property valuations: $150 million instead of the roughly $200 million that would have been distributed in 1968 had the NESDEC formula been enacted as originally proposed and also fully funded.

It later appeared, however, that the low variance had another effect. Study of the computer tables[18] showed that the formulas based on family income failed to equalize communities in low-income areas. Table VI shows the operation of the foundation formula favored by the study, based chiefly on family income, compared with the operation of the unrestricted NESDEC formula based on equalized valuations, in eleven towns and cities

[16] André Danière, *Cost-Benefit Analysis of General Purpose School-Aid Formulas in Massachusetts*. Boston: Massachusetts Advisory Council on Education, 1969.

[17] The computations were based on 1966-67 enrollments, community characteristics, and school costs. Variations were tested using different maximum and minimum limits on aid percentages as well as on reimbursable expenditures. Measures of local financial ability used included 1965 equalized property valuation figures, 1960 census figures for average family incomes, and the square of the number of school-attending children as a figure for "municipal overburden."
The performance of the several alternative formulas, using property valuations, average family incomes, and combinations of these, was judged in each case by theoretical application of the same formula for five years to the same level of school expenditures. Each computation assumed that the community will use one half of any increase in the "reimbursement" each year to reduce its local tax contribution and will allocate the remainder to an increase in school expenditures. Conversely, a decrease in reimbursement would be divided between an increase in local tax contribution and a reduction in school expenditures.
The equalizing effect of each formula was tested by comparing the 1st, 20th, 50th, 100th, 200th, 150th, 300th, and 350th districts ranked according to expenditure per pupil, according to local tax effort, and according to an expenditure-effort ratio.

[18] Danière, *Cost-Benefit Analysis*, pp. 155 ff.

evenly distributed throughout the list of 351 ranked according to valuation per child. Both programs are based on funding at $150 million and 1966-67 data.

Study of the computer tables confirmed the sample, that under the income-based formula aid to most communities usually regarded as low-income districts fell considerably short of aid under the valuation-based formula. In a subsequent *Summary of Analysis* (August 1969) Daniere assigned the low variance of family income as an ability measure as the reason. "Because income ratios simply do not have as wide a range as valuation ratios," they do not allow enough differences in state aid to provide broad equalization.[19]

TABLE VI

1 Town ranked by val/SAC in $ thousands	2 Rank by income ratio	3 Current state aid %	4 1966-67 expend. per NAM	5 Income formula aid/NAM	6 Modified NESDEC aid/NAM	7 Expend/NAM under income formula	8 Expend/NAM under modified NESDEC
1 - $364	247	15%	$1499.	$112.	$ 98.	$1035.	$1524.
36 - 42	299	15%	891.	149.	122.	855.	935.
71 - 28	303	15%	403.	215.	135.	650.	493.
106 - 23	164	24%	el. 418. sec. 741.	178.	74.	652.	el. 428. sec. 751.
141 - 21	126	31%	el. 610. sec. 779.	184.	164.	738.	el. 680. sec. 849.
176 - 19	250	37%	el. 799. sec. 632.	225.	187.	672.	el. 873. sec. 706.
211 - 17	246	43%	514.	135.	209.	650.	626.
246 - 16	167	47%	el. 415. sec. 605.	87.	284.	658.	el. 563. sec. 753.
281 - 15	258	51%	456.	63.	194.	399.	538.
316 - 14	228	55%	642.	279.	265.	658.	758.
351 - 6	272	75%	483.	69.	87.	451.	526.

Sources: Columns 1, 3, and base data for column 6, Research and Development Division, Massachusetts Department of Education; column 4, except No. 71 (R&D, MDE), Research Division, Massachusetts Teachers Association; columns 2, 5, 7, Daniere, *Cost-Benefit Analysis*, pp. 155 ff.

Notes: The foundation formula used for columns 5 and 7 computed a community contribution according to an ability measure based on .8 average family income, .2 valuation, and the square of the number of children as a population factor. Theoretically, the per-pupil grant in column 5 was intended to be added to a local contribution based on the ability measure to make a total expenditure of $650 per pupil.

The unrestricted NESDEC entitlements for 1968 would have totalled $200 million, as noted on page 16; in this table, therefore, *half the difference between the unrestricted entitlement and the actual disbursement was added to actual aid and actual expenditures in order to arrive at a comparable aid program totalling $150 million.* Columns 5 and 6, and 7 and 8, are thus made comparable with each other.

Where figures are split between elementary and secondary expenditures, the secondary pupils are in a regional school, and integrated figures are not available.

Dollar aid to town No. 351 is low because its school revenue comes largely from federal funds.

[19]Daniere, *Summary of Analysis*, 2nd Version. August 1969. p. 57.

2) *The child population.* The 1948 foundation formula used resident children 7 through 16 years of age, as counted in the annual census, nonpublic as well as public school children. This tended to exclude the primary grades and the latter two years of high school. The NESDEC formula uses resident children in school, kindergarten through grade 12, but continued to make no distinction as to public or nonpublic schools. As said earlier, this provided a useful subscitute for a municipal overburden factor. In 1970, however, the greater needs of low-income communities demand more substantial recognition.

The Daniere formula shown in Table VI used the square of the number of children as a population factor, which served well the interests of city No. 316. The size of a community, however, does not determine the proportion of its revenue that can justly be devoted to school support in relation to other services.[20] In the studies of the Committee on Equal Educational Opportunities appointed by Commissioner of Education Neil V. Sullivan, a factor using the relative proportion of nonschool taxes was suggested as a more accurate representation, and André Daniere developed such a formula.[21]

Even with the addition of such a factor, however, it might well be politically difficult to change the school population used in the ability ratio to public school enrollment. Nor would it be particularly significant, unless actual aid were extended to nonpublic school students.

3) *The "municipal overburden" factor.* Table VII presents the three choices described above based on a state aid average of 35 percent on the NESDEC formula and 1968-69 data. In order to utilize background presented in Table VI, the same decenary sampling was used, although the valuation-per-child rankings have obviously changed in the intervening two years.

Column 1 shows the percentages on which current 1970 aid is based, using all children in any school; *column 2* the percentages of a NESDEC plan based on the Daniere ability measure of .8 family income ratio and .2 valuation ratio, plus the population factor of the number of children squared; *column 3* the NESDEC plan based on equalized valuations and the Daniere formula using nonschool tax rate ratios to indicate municipal overburden. (See Table VII on page 14.)

4) *Optimum state and local shares in school support.* Where major emphasis in school financing is placed, whether on local support or on state responsibility, bears some influence on the type of formula used. A foundation plan is completely equalizing only when every town taxes itself at no more than the mandated rate and spends only the required amount for schools. The required amount is not related to a school's budgetary needs, and any larger expenditure is a purely local responsibility; nor does the plan recognize that a fixed dollar amount buys different levels of services in different communities.

[20] Erick L. Lindman, *State School Support and Municipal Government Costs*. University of California, Los Angeles.

[21] State aid $= \left[1 - \left(.65 \left(\left(\frac{110}{100} \times \frac{\text{local val/SAC}}{\text{state val/SAC}}\right)\right) - \left(\left(\frac{10}{100} \times \frac{\text{local nonschool tax rate}}{\text{state nonschool tax rate}}\right)\right)\right)\right]$

x school expenditures

TABLE VII

Town or City	1	2	3
1	15%	0	15%
36	15%	38.2%	27.6%
71	32.2%	46.3%	29.1%
106	18.3%	41.7%	13.2%
141	27.3%	42.5%	15.0%
176	38.9%	47.6%	36.0%
211	46.4%	36.4%	44.2%
246	51.8%	30.5%	50.4%
281	51.2%	30.6%	51.4%
316	54.9%	54.2%	68.6%
351	75.0%	59.4%	75.0%

Sources: Columns 1 and 3, Division of Research and Development, Massachusetts Department of Education; column 2, Daniere, *Cost-Benefit Analysis*, pp. 212-218.

The percentage plan was developed "to allow services, dollars, and tax rates to vary in accordance with local preferences."[22] But at low funding levels it may not be more effective in equalization. The lower the average percentage at which the formula is set, the more towns are pushed down to the floor. At a 25 percent average on the NESDEC formula, for instance, 114 towns would be protected at the 15 percent level from lower or negative percentages.[23] At the 35 percent level, 80 towns are protected, and at 50 percent 44 towns.

When we speak of "state" aid or a "state share", we are referring to funds collected from all citizens of the state according to their individual financial abilities, in excise, sales, income, or corporate income taxes, and distributed to communities according to community financial ability. We have said earlier that if the NESDEC formula were administered in a completely pure and unrestricted form, some towns would pay in money to the state instead of receiving a minimum reimbursement. There are some who advocate this as preferable to increasing individual state taxes in order to give every town some minimal reimbursement.

Weiss describes a variation of the NESDEC plan in its pure form,[24] drawing upon a study then unpublished.[25] The plan is called "district power equalizing," and expects that each school district will determine its own program and fiscal investment according to its

[22]H. Thomas James, "Modernizing State and Local Financing of Education," in *A Financial Program for Today's Needs:* Proceedings of the Seventh National Conference on School Finance. NEA. 1964.

[23]This has tended to be hidden in the process of deducting the previous year's aid and of prorating the reduced entitlements within the yield of the sales tax; these steps have brought the average aid below 25 percent and effective aid as low as 5 or 6 percent.

[24]Steven J. Weiss, *Existing Disparities in Public School Finance and Proposals for Reform.* Cited above.

[25]John E. Coons, William H. Clune III, and Stephen D. Sugarman, *Private Wealth and Public Education.* Harvard University Press. 1970.

needs, but that the state is committed to providing that the relationship between the expenditure of the district and its school tax effort shall be the same in all districts.

For example, a schedule could be established by the state, matching a series of expenditure levels to specified local tax rates. If the required tax rate did not yield enough money to meet the matching expenditure level, the state would make up the difference. If the school district was able to make a larger expenditure on a lower tax level than specified, the community would be required to levy the tax level matching the larger expenditure and contribute the difference in yield to the state pool from which state aid was drawn.

This plan "would capture revenues from property values now locked up in low-tax enclaves," providing some state aid, at least, from property tax funds. If it were desired to keep property taxes down, the state contribution from broad-based taxes could be raised.

Beginning with a proposal by Dr. James Bryant Conant for total state assumption of local school costs,[26] interest has grown in various methods of exerting state responsibility in school financing. A proposal before the 1970 Michigan legislature, which was not enacted, would have converted the property tax to a state-assessed and state-collected tax, with the state sharing in local school costs on a flat percentage of local expenditures. In such a plan equalization takes place in the collection of the funds rather than in the distribution.

A similar but much broader plan has been proposed for Massachusetts by Robert T. Capeless, a member of the Legislature's Master Tax Plan Commission. This plan would undertake to reduce the property tax from its present 51 percent of the total of state and local taxes to a constant 40 percent, by monitoring total state and local expenditures, assigning necessary revenues to sales, income, corporate income, excise, and property taxes on a proportional percentage basis, to produce total revenue deemed adequate to meet state needs and reimburse communities for up to 90 percent of average local school expenditures in the preceding year, with an additional grant for other municipal needs. The plan involves rate setting and collection by the state for property taxes as well as income and sales taxes. Communities would be left to raise the balance of expenditures beyond the reimbursement level, as well as annual increases in local expenditures, from property taxes beyond the state property tax; but the local levies would be counted into the overall 40 percent limit. The higher the local levies the more other state taxes would be drawn upon to keep the 60 percent balance.

In a similar plan, the Advisory Commission on Intergovernmental Relations (ACIR) also stresses property tax relief through state assumption of school costs, "replacing property tax dollars with income and sales tax dollars."[27] Its 1970 legislative program argues further, "Heavy reliance on the property tax for local school support can contribute to severe fiscal tensions in the intergovernmental financing system. . . . Local non-educational functions have become inferior claimants in the competition for the local property tax base. . . .

[26] James Bryant Conant, *A Comprehensive High School: A Second Report to Interested Citizens*. McGraw-Hill. 1967.

[27] *1970 Cumulative ACIR State Legislative Program*. Advisory Commission on Intergovernmental Relations. Washington, D.C. August 1969. 16-1200 p. 1.

An increasingly skewed system of financing has developed, one in which costs for a major function of widespread benefit are largely localized."

Unlike the Capeless plan, the ACIR legislation would restrict local supplementary support to not more than 10 percent of the state outlay for local schools, as "failure to do this would undermine the objectives of creating a fiscal environment more conducive to equal educational opportunity and of making more of the property tax base available to finance the general functions of local government."

Such a restriction upon local financing of desired school programs suggests implications for local control of education, with which incentive and motivation are associated. In other states such restrictions, in other tax structures, have led to both hardship and strife in local school districts.

Reducing the property tax share to 40 percent of all state and local taxes would bring Massachusetts to about the national average (see Table III) as it stood two years ago in most recent complete figures. The same goal could be accomplished at this time by raising the present NESDEC program from its present 35 percent average to a 50 percent average. Such an increase in 1969 state aid would have occasioned a 23.8 percent rise in total state taxes and a corresponding decline in the property tax of 20.1 percent, reducing the property tax share of total state and local taxes from 51 to about 41 percent.[28]

Both plans are equalizing, one through taxation, the other through distribution. Percentage aid is keyed to community financial ability and community effort; the state-monitored plan is weighted for low-spending districts. On the other hand, under the state-monitored plan, as with any flat grant, the less able the community that wishes to exceed 90 percent of the state average expenditure, the greater the local tax effort required. This might tend to keep educational spending down. Some feel, however, that because increases in spending may be less clearly reflected in personal taxes under the state-monitored plan local appropriations would be less restrained. The long-range psychological effect on exercise of community responsibility in education can only be conjectured.

Either program would initially reduce the property tax by a substantial margin. Either plan would require decided improvement in practices of equalizing valuations. So long as school costs bulk large in local expenditures, equalizing aid at a 50 percent average would keep the proportion of the property tax down in relation to total state and local taxes. With both plans, much would depend on the level of reimbursement maintained by the legislature if school expenditures began to rise more sharply. If, under the state-monitored

[28]

1969 total property taxes	$1,397,000,000.
1969 total state taxes	1,178,800,000.
Fy 1969 total public school revenues	932,600,000.
from federal sources	48,177,047.
from state and local sources	884,396,941.
½ from state and local sources	442,198,470.
Balance over 1969 state school aid to be shifted from property tax to state tax revenues	281,137,908.

Source of data: Division of Research and Development, Massachusetts Department of Education.

plan, local school districts were again to depend on disparate local resources for a large part of their expenditures, inequities would reappear.

If the present state aid plan is continued, and enlarged to average 50 percent of school operating costs, the other 50 percent might well be divided rather equally between the local and federal governments. Only the federal government can achieve the same equalization among states that we seek within this state. Although such aid is unlikely in the immediate future, perhaps even in this decade, several national groups have proposed federal aid to education, on an equalizing basis among states, that would average 20 to 30 percent of operating school expenditures.

5) If a percentage formula is used, *to what level should school expenditures be reimbursed?* At the present maximum of 10 percent above state average, 105 towns are reimbursed this year for less than their full costs. Raising the maximum to 30 percent above state average would bring the "cutoff" towns down to 44, at an additional cost in state aid of $3,168,000, or less than 1.5 percent. At a maximum of 50 percent above state average, 16 towns would lose reimbursement, and the cost above present aid would be $4.6 million. For an additional $.7 million all towns could be reimbursed to the extent of their state aid percentages.

The question of a ceiling on reimbursable expenditures therefore seems to be one of equity and effective equalization rather than of substantial cost to state taxpayers. School administrators feel the present cutoff is inequitable and a denial of the incentive principle of the formula. Others are concerned with what they feel to be inadequate equalization in the program. Perhaps the useful compromise would be a minimum percentage lower than the present 15 percent, applied to all expenditures.

A potentially more serious impediment to equalization is the separation of some school expenditures in other aid programs. Fifty percent aid for programs in special education and in vocational education discriminates against less able and in favor of more able districts, as does any flat grant. Further, with more than one category of aid available, administrators tend to "play the percentages" in developing programs. In respect to vocational education, the special aid is fostering rapid growth of regional vocational schools. This tends to militate against the development of comprehensive high schools and the blending of occupational and academic education for all students, thus impairing equal opportunity.

For 1970, aid to vocational education amounted to nearly $14 million, and to more than $10 million for special education. For 1971 vocational education aid at this writing is estimated at $17 or $18 million.

Initial legislation for the present state aid program absorbed all special or categorical aids except the school lunch program, for which reimbursement is necessarily on a monthly basis, and transportation. Nevertheless, the 50 percent categorical aid for special education was added to the bill before enactment in 1966, and similar aid to vocational education was added a year later in Chapter 791 of the Acts of 1967.

An additional factor damaging to equalization came in the reenactment of the

incentive aid to regional districts. Before 1966, this 15 percent addition to state aid grants applied only to those students in regional schools. This special aid was dropped in the general aid law of 1966, the revised Chapter 70. When reenacted in Chapter 779 of the Acts of 1967, the wording of the act allowed application of the 15 percent premium to the total reimbursement going to any school district, any part of whose students attend a regional school—not limited to the reimbursement applicable just to students in the regional school. In this way cities of considerable size have claimed and are receiving an additional 15 percent of their state aid entitlements because they have joined a regional vocational school district. For 1970 this additional aid amounts to $11,480 million and may be expected to increase rapidly. Altogether, these non-equalizing aids amount to more than $35 million for 1970, a substantial offset to the equalizing effect of the $200 million distributed this year in general aid.

The other special aid, transportation, was excluded from the general aid program because of the large proportion it holds in rural school budgets. Yet it also bulks large in state aid, a probable $18 million for 1971, and should be reconstructed on an equalizing basis.

IS THE END RESULT GOOD SCHOOLS?

Any school finance plan can be tested 1) by whether it makes possible a similar good school program in all districts on similar tax rates, and 2) by the end result in good education. The second test involves both motivating a community to devote its own substantial funds to school support, within its ability, and effective use of the total funds. Unless the end result is good education, the total program is ineffective. Unless the end result satisfies the community, school support tends to disappear.

Substantial state reimbursement offers opportunity for intervention which, if wisely used, can involve the community in its own behalf—both with funds and with lively concern for quality of its schools.

Numerous studies in the past decade have attempted to determine reasons for local decisions in school spending. They show that substantial state aid is a strong influence in local support, but not the only factor. One study found state aid a strong factor in the differences between school expenditures,[29] another that variations in per-pupil spending fall as state aid per pupil rises.[30] A later study under the same auspices concluded that, unless the state interferes, state funds will be used rather generally to reduce local property taxes,[31] and a third that while tax rates on equalized property are probably lower in states with high levels of state support, variations in tax rates among districts are probably not dependent

[29]S. Sacks, R. Harris, and J. J. Carroll, *The Role of State Aid*. Albany, New York State Department of Audit and Control, 1963. p. 169.

[30]H. Thomas James, *School Revenue System in Five States*. School of Education, Stanford University, 1961. pp. 41-45.

[31]H. Thomas James, J. A. Thomas, and H. J. Dyck, *Wealth, Expenditures, and Decision-making for Education*. School of Education, Stanford University. 1963. p. 38.

upon the level of state support, and the degree to which a community will tax itself to support education depends more on the shared aspirations of its citizens than on any other single factor.[32]

A study of individual school districts by wealth, enrollment, and population characteristics found that high valuations per pupil or high state aid were much stronger factors in increased local spending than socio-economic characteristics.[33] A 1963 study found a somewhat greater stimulation of local expenditures from the recently installed percentage equalizing plan in Rhode Island than from the foundation plans in other New England states.[34]

In Massachusetts some communities are known as "education-minded," and among both high and moderate-ability districts they may be identified by the high proportion of tax yield devoted to school support, as well as by community interest. Others make relatively high per-pupil expenditures but are not known for high quality of education. Still others are clearly low in both expenditure and in quality of education. A number of such towns tend to remain in a low-spending habit, as experience over three years of the restricted NESDEC program indicates. For instance, in 1966-67, 59 school districts spent less than 80 percent of the state average, and 53 did so in 1968-69; of these, 36 districts appear on both lists, and not all are low-ability towns.

WHAT THE STATE CAN DO

While the low-spending, low-quality schools have been a primary target of official concern in recent months, any ineffective spending tends to deny children educational opportunity and creates public distrust. The current proposals for state intervention have been 1) mandated expenditure, and 2) mandated program, to which this report adds 3) local educational accounting.

1) A relatively high *mandated minimum expenditure* was an integral part of the Daniere foundation program,[35] on the premise that the mandated expenditure ought to provide the desired education for every child; anything beyond that level is to be regarded as a matter of community choice unimportant to the state. Since the minimum was set as the average of the highest 25 percent of the previous year's expenditures in all school districts, a continuing rise in the standard would be assured. The mandated expenditure would be enforced by the penalty of withholding the total state share.

Advantages of such a mandate are given as follows: if the minimum is set at a high level, all but the richest districts are likely to make similar expenditures and thus salary

[32]H. Thomas James, *Revenue Sources for the Support of Public Education*. School of Education, Stanford University.

[33]John Sokol, *Effects of an Increase in State Aid on Local Expenditures*. IAR Research Bulletin, Institute of Administrative Research, Teachers College, Columbia University, May 1965.

[34]George A. Bishop, "State Aid for Schools," *New England Business Review*. September 1963.

[35]André Daniere, *Cost-Benefit Analysis of General Purpose School-Aid Formulas in Massachusetts*, cited above.

competition will be reduced; communities will be freed from debate on the budget they can "afford," and will turn to educational considerations; if the minimum expenditure is likely also to become a ceiling, the attention of school authorities may be turned to cost effectiveness and program budgeting.

The particular foundation formula offered in the proposal, as was shown in Table VI, failed to add enough state aid to the mandated local contribution to raise low-income districts to the mandated expenditure level; further, in some cases the required additional tax levy was greater than the proffered state aid. The program was subsequently amended, therefore, with an alternative to allow state aid payments if a community raised its budget toward the minimum by a stipulated percentage each year. Because such an alternative could scarcely be denied to any community, the plan becomes simply one of requiring an annual increase in school budgets. If a lower minimum expenditure were set in a foundation program, one that would be politically non-threatening to the majority of districts, then indeed a low ceiling becomes acceptable for low-effort communities; such communities would receive no state help in moving beyond that minimum and thus the problem of equal opportunity remains.

With state assumption of school costs, the penalty of withholding a state contribution takes on a different cast. While not impossible, the idea of requiring a local tax levy to make up the entire cost of school support as a penalty for too small local support seems politically unrealistic.

A mandated minimum expenditure could, however, be used with an equalizing percentage as with a foundation program, with similar penalties. With the single exception that the state would share in improvements above the minimum program, its disadvantages would remain: That is, the required minimum expenditure tends to become the object of attention instead of the educational program, and thus tends to increase rigidity in the school structure. Educational improvements are not insured, because fulfillment of the minimum is easily satisfied by salary increases, or by purchases not necessarily related to needed program improvement. Nor do minimum expenditures insure equal program in different communities, because similar programs cost differently in different areas, and needs of students differ. Finally, if the maximum expenditure does not achieve good education, the state has no further sanction to use. If a requirement is to be attached to state contribution, it should relate effectively to improvement of children's learning.

2) The Willis-Harrington Commission recommended *mandated curriculum standards*, and Section 1G of Chapter 572 of the General Laws of 1965 subsequently gave the Board of Education such powers. Since that time the Department staff have endeavored to produce curriculum guidance. Recent hearings on guideline proposals have shown both the existing strong public desire for state leadership in improving school curriculum and, on the other hand, doubt that the best guidelines will by themselves take on the flesh and blood of dynamic and attractive curriculum. A school district could meet content requirements without actually providing good education.

While the guidelines will be useful in setting goals, good curriculum is built organically, to the needs of given students, drawing on materials from many sources. Its success

depends to a large extent on skilled and sensitive teacher-student interaction. This no mandate will provide.

3) *Local educational accounting.* Between financial pressures and public dissatisfaction, accountability has become the object of widespread serious study. The Gibson Report[36] on the Department of Education proposes annual reports from each school district to the Commissioner relating expenditures to school services and to student achievement. A major study published by the National Association of Secondary School Principals[37] warned that today's principal "will have to accept increased accountability for the quality of education in his school." It has long been pointed out, as James did in 1964, "Explain the costs of education to the public in terms of the services rendered, and schools will be better supported."[38] But it may be questioned whether school budget-making and accounting processes have grown much more intelligible.

Accountability cannot be a one-way street. Reporting alone does not achieve public understanding of what the school does, as every school superintendent knows. Mechanisms are needed that will involve community interest in determining what a school does in constructive ways. Recent research has indicated, moreover, that the extent of parental and community interest in the school is the chief factor in accounting for student achievement.[39] Local educational accounting can utilize the recognized connection between student ability to learn and student satisfaction, and the obvious reflection in community satisfaction.

If community people are involved in discussions of school goals and program, school improvement will come about because none of us finds himself in a position of explaining his work without learning more about it, organizing it more effectively, and discovering improvements. The mechanism proposed here is based on observation that people ordinarily develop an interest in one or two areas at a time. Thus educational accounting should focus on those areas in which interest appears, on an *ad hoc* basis, without undue delays, and develop broader interests later.

School people should a) account for school performance in any area that is questioned, whatever that performance may be, b) invite interested individuals or groups into joint goal-setting for improvement, collaborating with teachers, students, and administrators; c) devise jointly methods of evaluating programs, and d) use outcomes in further planning.

In such discussions teachers and students would be involved in curriculum planning, as they seldom are at present. Rigidities in school practices would be relaxed, whether they

[36]John S. Gibson, *The Massachusetts Department of Education–Proposals for Progress in the '70's*, Lincoln Filene Center, Tufts University, June 1970, sponsored by the Massachusetts Advisory Council on Education.

[37]*Education U.S.A.* March 23, 1970. p. 165.

[38]H. Thomas James, "Modernizing State and Local Financing of Education," cited above.

[39]Edward L. McDill and others, *Education Climates of the High School: Their Effects and Sources*. Center for the Study of Social Organization of Schools, Johns Hopkins University, Baltimore.

originated from outside pressures or inside inertia. Since each school would be accountable to its own community, as well as the school district to the larger community, flexibility would be encouraged in trial of innovations, whether in curriculum or in staff utilization or in use of community resources, all measured in terms of what happens with children. The more improvements are desired, the more carefully would funds be allocated; thus community accounting would be more likely to lead to program budgeting and evaluation of cost effectiveness than any amount of professional exhortation.

Certain cautions are in order. Appropriate accounting would be defeated if it were allowed to foster new pressures on students or teachers, through administrative determination of the problems to be addressed, or emphasis on student achievement scores. It is essential that educational accounting not be construed as a requirement for any performance level, which would distort the goals of meeting student needs and be injurious to the quality of the total program.

On this basis local educational accounting would become a requirement for state aid, operating in much the same way as does the nondiscrimination requirement of Title VI of the Civil Rights Act. In the absence of complaint from the community, state aid would be paid in routine. A complaint from any group within a stipulated time period would bring about inquiry from the Department of Education, a hearing if indicated, and determination as to the kind and degree of community consultation deemed appropriate to secure release of state aid funds. If community people failed to make a case one year and dissatisfaction continued, they could seek better information and develop public opinion. The school could request Department staff help. The appeal to the Department would be not as to the correctness or the equity of local program decisions, but rather as to the adequacy of accounting and of community involvement. The desired effect is to open doors to a productive collaboration in improving all schools to a satisfactory quality level.

THE QUESTION OF STATE AID TO THE NONPUBLIC SCHOOLS

The fiscal crisis of the public schools has caused many public school administrators to eye with apprehension the closing of even harder pressed religious schools. Legislation introduced in the 1970 session to aid either private schools or parents of private school students with public funds has been found contrary to the Massachusetts Constitution by the state's Supreme Judicial Court, but an enabling constitutional amendment is already in process.

Various sorts of aid have been proposed, including salary subsidies, tuition grants, tax credits, and vouchers. The Daniere study proposed tuition grants to parents of private-school students on the order of 30 percent of the per-pupil expenditures of the public school district in which such families are resident. Reasons given for the proposal include a defense of the exercise of freedom of choice, economical use of public funds to keep open available schools and thus reduce the burden of other taxpayers, and involvement of private-school parents in support of higher public school costs.

Issues in the question are complex. Parents who choose to send their children to private or church schools ask whether they have thereby relinquished their claims on tax

dollars paid for public schools. Parents who are dissatisfied with public schools claim a right to equivalent public funds for tuition in competing private schools. Legal questions include both the separation of church and state under the First Amendment and the challenge that refusal of aid to children in private schools is discriminatory under the 14th Amendment. Throughout the country at least 27 cases are in federal and state courts, and two have been accepted by the U.S. Supreme Court for decision in the fall term.

The one federal court decision to date against public aid to nonpublic schools was taken on the violation of the First Amendment "insofar as it authorizes aid to teachers employed by denominational schools." This was the decision of June 15, 1970, on the Rhode Island Salary Supplement Act of 1969, and would appear to affect laws of Pennsylvania, Connecticut, and Michigan. The court saw "as the necessary effects of the kind of legislation involved here not only substantial support for a religious enterprise, but also the kind of reciprocal embroilments of government and religion which the First Amendment was meant to avoid."

The court also recognized the "deepening financial crisis" of the parochial schools and suggested that public aid to nonpublic schools would soon become public support of two school systems. Among the consequences likely to flow from this event would be loss of the special character of nonpublic schools, also suggested by the Rhode Island Court: the proliferation of private schools among many groups, both religious and secular, according to their special interests, which is already occurring; and, most significant to those concerned for equal educational opportunity, the division of all children between the selective admissions of nonpublic schools and those left to the public schools.

This report proposes that, while independent schools of many sorts serve a variety of special purposes, and individuals have every right to make their own choices, it is important to the maintenance of a democracy that the public schools be representative of our society, and that public funds should be restricted to schools open to all children and governed by public policy. There is room for much educational diversity among public schools in response to the variety of student backgrounds and interests. Research indicates that schools with all types of students potentially provide, and often do provide, education for all their students that is broader in content and results in as high or higher academic achievement, than do schools with restricted enrollments.[40] To meet the basic problems which have given rise to the nonpublic school aid controversy, however, and to achieve both school support and necessary school improvement for excellence of educational opportunity for all children, much more active citizen participation is needed in the reciprocal process of developing better educational goals in schools and greater understanding among citizens of what schools are and should be doing.

[40] *Equality of Educational Opportunity in the Large Cities of America*, Carroll F. Johnson and Michael D. Usdan, Teachers College, Columbia University, 1969, pp. 86-90.
"Implementing Equal Educational Opportunity," Neil V. Sullivan, *Harvard Educational Review*, Winter 1968, p. 153.
Education Climates of the High School: Their Effects and Sources, Edward L. McDill and others, cited above.

CONCLUSIONS

The schools will be well financed in Massachusetts when significant segments of the public recognize the importance of high quality schools to their own well-being. Almost no communities can achieve good education today without both financial and program help from the Commonwealth. And while stringent calls upon the public purse are made in behalf of welfare, crime control, and environmental reclamation, none of these problems can actually be met without a much higher quality of education than now obtains in most schools.

In the determination of priorities for use of public funds, education must still hold a primary place. Yet the quantitative allotment of dollars is not alone the answer, and continually increasing appropriations are not inevitable. Education funds must be regarded as prudent investment and carefully expended. Greater flexibility in educational practices, more use of community resources as educational facilities, and more reliance on participation of students, teachers, and interested laymen in the development of the educational process, will bring about greater economy and effectiveness in use of funds.

Since education is a state responsibility, the lion's share of at least 50 percent of school funding should come from state-levied resources, but not to the exclusion of substantial local support or without the expectation of a large federal contribution in the future. The method of state funding should itself contribute to the development of local initiative and public participation—thus the recommendation of this report for using the incentive of an unrestricted percentage equalizing plan coupled with a new program of local educational accounting.